they present the most susceptible group. As I have said before, the treatment is simple and is threefold: (1) Coöperation between medical and dental professions; (2) Establishing of a dental department in hospitals; (3) Training of nurses in dental hygiene.

The nurse's part in this great work is a very important one. It is she who comes in intimate contact with the patient and can instruct and watch the patient perform his dental toilet. It would be impossible for one man to accomplish that which the nurse could be trained to handle so efficiently. Let us then strive to give the patient a fair chance and make use of the knowledge which we now possess. Let us prepare our nurses with the proper training necessary in carrying on this important work.

MY EXPERIENCE IN X-RAY WORK

By R. M. L., R.N.
Pittsburgh, Pennsylvania

Often we hear people say, "Nurses are going out of their sphere" when they decide on taking up industrial nursing, X-ray work, electrotherapy, etc. Allow me to say I do not think so. I am not a graduate of many years back, but I have seen nursing from a few points of view and I am now employed with a surgeon who operates in one of our large city hospitals and does his own X-ray work in his office laboratory. I thoroughly enjoy the work and am learning much. Let me describe a little of what we are doing; judge for yourselves whether I am forgetting any of the many things I learned during my three years' training.

Although a little minor work is done, consisting of a few pictures of fracture, etc., the principal work is the giving of barium for the study of the gastro-intestinal tract. The nurse's work consists chiefly in preparing the barium to be given,—about four ounces of barium, well mixed with one pint of buttermilk. This forms a creamy liquid, and is not disagreeable for the patient to take, as the barium is absolutely tasteless.

A clever idea in taking a picture, is to attach, with adhesive, a small bright coin to the center of the umbilicus; in this way it is quite easy to determine the position of the abdominal organs in relation to the umbilicus and in relation to each other.

Of course, the heart and lungs are not included in the gastro-intestinal tract, but they can easily be studied when the fleuroscopic screen is thrown upon the patient. It is only natural that a competent

physician will study his patient from the top down, including that which is thrown into view at the beginning of the intestinal tract.

The patient is placed behind the screen and is given the barium solution to drink, while the function of the esophagus is studied from a front and back view. When the pint of solution has been taken, the average stomach is about three-fourths filled, and its function, position, and condition are easily studied. Soon the food begins to pour out of the stomach, assisted by the peristaltic waves. The duodenal cap is easily seen. In cases of abnormality, where the small intestines are collected in a mass on the pelvic floor, the barium is seen collecting in these dilated loops of the small bowel. In the normal small intestine, the barium is not easily seen, as it is so widely scattered over the abdominal cavity that it presents only a hazy appearance, and is considered quite normal.

The patient is seen in about three hours from the time the meal has been given. In many cases, where the position and function are quite normal, the stomach is about three-fourths empty of the barium. In about five hours, the stomach is entirely empty, if no other food has been taken. At the end of nine or ten hours, the barium is entirely in the small intestines, but so packed together are these dilated loops that they look like one solid mass lying on the pelvic floor. Is it any wonder that they cannot perform their normal function, that of absorbing the nutrition from the food taken, and thus adding to the well-nourished condition of the patient? Naturally the food is longer getting out of these small intestines with poor function, than from those of the normal individual.

At the end of twenty-four hours, the barium is usually out of the small intestines, and can be seen in the ileum, or the lower half of the small intestines. In thirty-six hours, the colon is pretty well filled and can be outlined concerning its condition and location which, in many cases that are X-rayed, are quite abnormal, with a wide dilated cecum, which may be described as a cess-pool, and in which food is known to stay, in some cases, for five and six days.

I have seen food stay in the *stomach* a week; this of course was due to an obstruction and surgical means had to be used to relieve it.

When we see the condition of these poor unfortunates, we wonder how they are able to enjoy as good health as they do, as they are continually taking up toxic poisonings from the decomposed food lying in the large intestine.

Much more can be said along this line, but I do not want to go too much into detail. I would like to have others see how very interesting this work is, and how much improved these patients can be with a few weeks of proper reconstructive care and treatment.